



LOGBUST™ COMPUTER PROGRAM

History and Recommended Approach



The LOGBUST™ computer program uses well log and seismic correlation data to arrive at geologically viable interpretations based on patterns of growth within the existing stratigraphic section. The program processes the correlation data and outputs the data in a graphical display that is readily interpreted. The interpreted correlation data can then be integrated into existing data for consistency of interpretation. The program contains a number of propriety subroutines to process the correlation data. Depending on the nature of the correlation analysis and the data being studied, the subroutines can be accessed to analyze various structural and/or stratigraphic data to resolve correlation problems and uncertainties.

The concepts implemented in the LOGBUST™ program are summarized in Bischke (1994) and the “Applied Subsurface Geological Mapping With Structural Methods” (Tearpock and Bischke, 2002) textbook. The unique and copyrighted aspects of the program are its integration of those concepts into an automated procedure. With this procedure, a user can start with digital correlation data and produce an integrated interpretation that is consistent with the correlation and interpretation data. One of the unique aspects of LOGBUST™ is to test for the consistency of the correlation data. Because of this validation of correlation consistency, subsequently generated interpretations and maps should be more accurate and three dimensionally valid, which should lead to more successful exploration or development programs.

The LOGBUST™ computer program is an integrated set of subroutines, referred to as macros. Each macro assists in generating various plots to resolve known or suspected correlation problems. Furthermore, the program can readily detect correlation problems that may pass unnoticed using conventional methods. The macros are written in Visual Basics, built around an Excel graphics package.

Recommended Approach to Learning LOGBUST™

The easiest way to learn LOGBUST™ is to attend the 2-day hands-on training course offered by SCA. This should be followed immediately by applying the methods to a real world project using existing data. This ensures the correct methods are used, that little time is spent looking through the manuals for specific techniques, and that a high quality result is achieved quickly the first time. (See www.scacompanies.com/logbust.htm).

Documentation, in the form of a training material, is provided in the 2 day short course, and a workflow section is present at the end of the LOGBUST™ program. This material walks the user through the correlation consistency and interpretation process. After the class, this material provides an excellent reference to remind and guide the user thorough the LOGBUST™ process.

Another approach that clients may prefer is to have an SCA geoscientist work with client personnel using the LOGBUST™ program. A project combined with hands-on training and the LOGBUST™ training manual are then used as a real world training ground. With the assistance of SCA, a client works on a project using LOGBUST™. This approach accomplishes two things: 1) it guarantees that the client has a thorough knowledge of the program and how the correlation data are integrated into a viable interpretation, and 2) it trains the user in the fundamentals of LOGBUST™ using a project in which there is knowledge and a current need.

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